

REMARKS

Claims 1-18 remain in the application with claims 1, 2, and 7 amended to improve form. Reconsideration is requested for claims 1-18 as amended.

The Examiner has objected to the title as being too long, and the title has now been amended as suggested by the Examiner to shorten the title.

The Examiner has objected to the drawings because reference numerals 38 and 52 have been used to designate the same part.

It is believed that the Examiner intended reference characters 38 and 50, as shown in Fig. 5. The new formal drawings submitted herewith include the reference numeral 50 being changed to 38 in Fig. 5.

The Examiner notes that reference character "38" has been used to represent shorting contact and stop pins. By the present amendment of Fig. 3, the stop pins are now labeled 37, and the corresponding change has been made in paragraph 20 of the specification.

Accordingly, it is believed that all objections to the drawings have been addressed.

The Examiner has objected to claims 2-18 as being of improper dependent form, the Examiner noting that "a tool" should be changed to --the tool--, so as to reflect the dependent claim formats.

By the present amendment of claims 2 and 7, the change suggested by the Examiner has been made.

Claims 1-18 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite, the Examiner stating that the claims are directed both a tool and a DUT board.

This rejection is respectfully traversed with respect to claims 1-18 as amended, particularly with claim 1 as rewritten to specify a tool for preventing electrostatic discharge damage when handling an electronic device under test for a DUT board.

Further, it is noted that claim 1 recites "the tool comprising:".

Element c) of claim 1 is now rewritten to specify at least one electrical shorting connector extending from the frame and adapted for electrically contacting and shorting socket connectors and leads on an electronic device when a DUT board is inserted into the guides.

It is believed that claim 1 as now amended clearly defines the tool and not the tool in combination with a DUT board.

In claim 1, lines 2-3, "the board" has been changed to --a board--.

All references to "a DUT board" are in the singular and not plural.

Claim 1, line 7 has been amended to specify "an electronic device to be tested".

The scope of claims 6-11 and 17-18 is believed to be clearly limited to the claimed tool for preventing electrostatic discharge damage. References to a "DUT board" is solely for describing the function of the tool and does not combine the tool with the DUT board.

Accordingly, it is believed that claims 1-18 as amended are in compliance with 35 U.S.C. 112, second paragraph.

Claims 1-2 and 12-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Oster et al. (5,793,218) the Examiner stating that as best understood Oster describes a tool comprising a support frame 20, guides on one side of the frame 62 for slidably receiving a board 18 and at least one electrical shorting connector 58 extending from the frame and electrically contacting and shorting socket connectors and leads of an electronic device.

With regard to claim 2, the Examiner states that the frame is connected to the shorting contact by material or pad 52 (see Fig. 2), and the limitations of claims 12-14 and 15-16 are disclosed by Oster where the frame includes a handle and a connector for receiving at least one of the DUT boards and a guide have stop 62 for limiting the travel of the DUT board.

As applied to claims 17-18, the Examiner alleges that while Oster does not show the DUT board having the configurations as recited, the limitations of claims 17-18 do not further limit the tool.

This rejection is respectfully traversed with respect to claims 1-2 and 12-18 as amended since Oster et al. neither shows nor suggests a tool for preventing electrostatic discharge when handling an electronic device under test board as claimed. The claimed invention is clearly directed to correcting the serious problem in handling ICs arising from the buildup of static electrical charge in a test environment, as described in applicants' Background of the Invention. As noted in paragraph [0004], it is critical that the devices being tested are not damaged by ESD either before, during, or after testing. Any such damage may ruin the device or may invalidate any collected test data.

As defined by independent claim 1 as amended, the claimed tool for preventing electrostatic discharge damage in handling an electronic device under test (DUT) board comprises:

- a) a support frame,
- b) guides on one side of the frame for slidably receiving a DUT board, and
- c) at least one electrical shorting connector extending from the frame and adapted for electrically contacting and shorting socket connectors and leads of an electronic device to be tested when a DUT board is inserted into the guides, the electrical shorting connector preventing electrostatic discharge to the electronic device to be tested.

Oster et al. are not concerned with such a tool for preventing electrostatic discharge damage when handling an electronic device under test board, Oster et al. are concerned with a generic interface test adapter for connecting a test station to any of a variety of units under test (UUT) or devices under test (DUT). Nowhere does Oster et al. describe the potential problem of electrostatic discharge damage when handling an electronic device under test board, and Oster et al. do not provide a shorting connector adapted for electrically contacting and shorting socket connectors and leads of an electronic device to be tested.

It should be noted that Oster's reference numeral "62" is a stop at the bottom of guides to limit the travel of a circuit cord assembly and not a frame. Reference numeral "58" is not an electrical shorting connector but rather a pair of card guides. See column 5, lines 7-15.

Pad 52 is an RF contact pad of a coaxial springloaded probe and is not a shorting contact as suggested by the Examiner. See column 4, lines 42-52.

Accordingly, it is respectfully submitted that the generic interface test adapter of Oster et al. neither shows nor suggests a tool for preventing electrostatic discharge damage as claimed.

Claims 3-11 having been rejected under 35 U.S.C. 103(a) as being unpatentable over Oster et al.

These claims depend directly or indirectly from claims 1 and 2, and it is respectfully submitted that the tool as defined by claims 3-11 is not suggested by Oster et al. for the reasons given above further patentability for claims 1 and 2.

Claims 1-2 and 12-18 have been rejected under 35 U.S.C. 102(b) as being anticipated by Steketee, U.S. Patent No. 6,170,329 the Examiner referring to the tool depicted in Figs. 1-2 as comprising a support frame 45, guides on one side of frame 55 for receiving a DUT board 20 (Figs. 1-2) and at least one electrical shorting connector 35 or 40 extending from the frame and electrically contacting and shorting socket connectors and leads of an electronic device.

This rejection is respectfully traversed since Steketee neither shows nor suggests the tool for preventing electrostatic discharge damage as defined by claims 1-2 and 12-18.

Steketee does disclose a test fixture adapter which overcomes the problem of requiring a unique adapter design for each device to be tested in a test fixture. However, Steketee is not concerned with electrostatic discharge damage to a device under test nor does the Steketee test fixture enclosure provide the function of preventing electrostatic discharge damage as does the tool of the claimed invention. The female connectors 35, 40 mate with male connectors for coupling test apparatus to a device under test (DUT). See column 3, lines 6-13. The female connectors 35, 40 do not electrically contact and short socket connectors and leads of an electronic device to be tested to prevent electrostatic discharge to the electronic device, as claimed, rather the connectors 35, 40 are part of the connectors to the device under test for performing tests on the device.

Accordingly, it is respectfully submitted that Steketee does not show or suggest the tool for preventing electrostatic discharge damage as defined by claims 1-2 and 12-18.

Since the objections to the specification, drawings, and claims have been addressed, since claims 1-18 as amended are in compliance with 35 U.S.C. 112, second paragraph, since claims 1-2 and 12-18 are patentable under 35 U.S.C. 102(b) and 103 over Oster et al., since claims 1-2 and 12-18 as amended are patentable under 35 U.S.C. 102(b) and 103 over Steketee, and since claims 3-11 are patentable under 35 U.S.C. 103(a) over Oster et al., all as above set forth, it is requested that claims 1-18 as amended be allowed and the case advance to issue.

Should the Examiner have any questions or comments concerning the present amendment and response, a telephone call to the undersigned attorney is requested.

Respectfully submitted,
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Amendments to the Drawings:

Submitted are formal drawings with Figure 3 amended to identify stops 37 and Figure 5 is amended to identify fine wire brush 38.